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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,501

12/27/2006

Alun Cole

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TUMEY, L.L.P.
P.O. Box 22188
Houston, TX 77227-2188

7590

04/24/2009

EXAMINER

FAYYAZ, NASHMIYA SAQIB

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,501	Applicant(s) COLE, ALUN	
	Examiner Nashmiya S. Fayyaz	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/07 4/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, on line 2, "its" is unclear. On line 3, it appears "veins" should probably be --vanes--. In claim 4, on line 2, "the extracting element" lacks antecedent basis. In claim 5, on line 2, "impellar" should probably be --impeller--. In claims 7 and 16, on lines 1 or 2, "the vein" lacks clear antecedent basis and is probably misspelled. In claim 9, on line 2, "its" is unclear.

Specification

3. The disclosure is objected to because of the following informalities: headings for the sections such as "Brief Description of the Drawings" should be included. Also, it appears that each instance of "vein" should probably be --vane--. Also, threaded connector 11 as on p.9, line 18 and transfer line 19 as on p.10, line 32 is not found. It is unclear what is being designated the "elongate cylinder portion" which is hollow as in claims 1 and 9. Note that the figures are very unclear and do not clearly depict such a feature or a spiral vein. Is the arrow

shape at the bottom of cylinder 2 actually shaped as such? Also, in claim 14, it is unclear what is being designated a heating device.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-11, 13, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-101243. As to claim 1, as best understood, JP-101243 discloses a water sampler including elongate cylinder portion (hollow cylinder part 26) which is arranged to rotate about its axis and having thereon veins (vanes 27), see translation and figures 1 and 2. Further, it is noted that JP-101243 lacks a teaching for extraction of analytes. However, it is also noted that

this recitation is only found in the preamble and therefore is not afforded the effect of a distinguishing limitation. On the other hand, testing of water samples is old and well-known. Therefore, since water is being sampled, it would have been obvious to one of ordinary skill in the art at the time of the invention to have extracted the water sample in order to test the sample for various analytes since such an expediency is old and well-known. As to claims 2 and 3, the vanes are made of a polyvinyl chloride resin and are shaped as in fig. 2. As to claim 4, as best understood, the probe is arranged to be rotated, note Abstract. As to claim 5, note blades or vanes 27 which act as impellers. As to claim 6, the water current acts as a rotating device or the blades or vanes 27 can be the rotating device. As to claim 7, note fig. 2 depicting the vanes as blades. As to claims 8 and 17, the vanes are made of a polyvinyl chloride resin and substitution with the specific materials of claim 17 is considered a matter of obvious design choice since various polymers are known to have similar properties. As to claim 9, the cylinder part 26 is hollow. As to claim 10, note the mesh net portion 28. As to claims 11 and 13, netting part 28 could be considered a sheath. As to claim 15, note inlet at nozzle 22 and outlet at pipeline 41. As to claim 16, note fig. 2 depiction. As to claim 18, the nozzle 22 appears to be in the form of a sparger and usage of glass frit is considered to have been a matter of design obvious to one of ordinary skill in the art at the time of the invention. As to claim 20, the shape causes swirling of the water by contact with the vanes.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Pawliszyn- US Patent # 5,496,741. As to claims 1-20, as best understood, Pawliszyn discloses a device for increasing analyte concentration in a sorbent including elongate cylinder portion (hollow fiber 20) which rotates about its longitudinal axis and includes agitator impellers extending away from the fiber, see figs. 1 and 2 and col. 2, lines 10 et seq. As to claims 2 and 3, note coating (8). As to claims 4 and 6, note col. 2, lines 25-29. As to claims 5 and 7, see fig. 1 depicting the impeller. As to claims 8 and 17, note polymer coating 8 and col. 2, lines 48-55. As to claim 9, note fiber 20 is recited as hollow and see fig. 2. As to claim 10, it appears that there is end 30. As to claim 11, note sheath (housing 22). As to claim 12, note plunger 27 and col. 2, lines 30-47. As to claim 13, note coating 8. As to claim 14, note heating (hotplate 10). As to claim 15, note ends of the housing 22. As to claim 16, note fig. 1. As to claim 18, note col. 7, lines 42 et seq which indicates usage of a glass like coating for diffusion. As

to claim 19, the container 2 inherently has a septum. As to claim 20, since there is agitation, there would appear to be continuous exchange.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nashmiya S. Fayyaz whose telephone number is 571-272-2192. The examiner can normally be reached on Tuesdays and Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/577,501

Page 7

Art Unit: 2856

/N. S. F./

Examiner, Art Unit 2856

/Hezron Williams/

Supervisory Patent Examiner, Art Unit 2856